

## GENITO-URINARY ORGANS.

**I. The Genesis of Malformations of the Bladder and Urethra.** By Dr. PAUL REICHEL (Würzburg). The theory of Duncan, that congenital malformations of the bladder and penis are caused by atresia of the urethra and bursting of the bladder or penis from pressure of urine, the author thinks is no longer tenable. Malformations in this region are due to failure of development of some foetal structures, or failure of union of some parts which normally unite.

The author declares that there is a gastrula stage to the mammalian embryo. The blastopore at first is a transverse slit at the tail-fold of the embryo. Later the blastopore sends a process up towards the head, becoming a triangular opening, and finally a longitudinal slit, called the primitive cleft. The edges of the primitive cleft join together, except at two points, forming the primitive streak of the embryo. One of the points which remains open becomes the anus and genital cleft, the other persists for a time as the canalus neurentericus.

The tail of the embryo eventually forms the inferior border of the umbilicus. The primitive cleft, if it persisted, would therefore be an opening into the intestine from the umbilicus to a point beyond the anus. The bladder is formed for the most part from the ventral part of the intestine, and only to a small extent from the allantois. A patent primitive cleft at a later period of development would consequently open into the bladder and not into the intestine.

Ectopion of the bladder is simply a persistence of the primitive cleft throughout the greater part of its extent, preventing the formation of the anterior wall of the bladder, the anterior abdominal wall, and the symphysis pubis, besides interfering with the formation of the external genitals. The cleft may be partly closed, forming various modifications of the deformity.

Epispadias is due to a persistence of this cleft separating the two halves of the genital eminence and allowing the urethra to pass between them to the dorsum of the penis.

Hypospadias owes its origin to the failure of union of the edges of the genital fissure on the under side of the penis. The union normally takes place between the seventh and fourteenth week. The urethra of the glans penis is formed in the same manner as that of the shaft, and not by a diverticulum from the surface, as was formerly supposed.—*Archiv für klinische Chirurgie*, Bd. 46.

GEORGE R. WHITE (New York).

**II. The Sublimate Treatment for the Various Forms of Cystitis.** By Dr. E. LOUMEAU (Bordeaux). The use of sublimate in the local treatment of cystitis was recommended by M. Guyon, and the result of his investigations, clinical as well as experimental, was published in *Annales Genito-Urinaires*, 1892. The conclusion reached after fifteen months of careful observation is favorable to the introduction of this antiseptic as a therapeutic agent in the treatment of vesical inflammation.

Experiments conducted by M. Halle had previously shown that sublimate affords: (1) A powerful preservative action against the microbes of the air; (2) an antiseptic action upon the urinary microbes, less effective than upon the ordinary pyogenic micro-organisms; (3) a feeble disinfectant action upon purulent urine, with which unusually large quantities must be used.

The action of sublimate is more powerful than that of nitrate of silver, and the action of both is increased by acting upon the vesical wall at the same time that they act upon the urine. The unpleasant staining of the clothing associated with the use of silver is avoided by the use of sublimate.

That instillation is preferable to lavage has been demonstrated by the clinical investigations of M. Guyon and his pupils, MM. Perregaux and Collin. In twenty-six patients suffering from some form of cystitis, the effect of lavage has been compared with that of instillation. In ten cases treated by lavage, two were cured, two were improved, six were unsuccessful. Of the eighteen patients treated by instillation, eight were cured, six were very greatly relieved, two were moderately improved, two were relieved so far as pain was

concerned. In two of these cases the treatment by lavage was unsuccessful; instillation was followed by good results. Instillations are, therefore, unquestionably to be preferred to lavage. They should be begun with great care, and should not exceed twenty to thirty drops of a solution varying in strength from 1-5000 to 1-1000. The solution 1-5000, which is the one to be used at first, rarely causes painful reaction if it be prepared without alcohol and with boiled distilled water. As a result of this treatment, micturition soon becomes less frequent, and the quantity of urine is increased, denoting a diminution of sensitiveness to distention and an increased capacity of the bladder.

With lavage, on the other hand (1-5000 or 1-3000), the pain complained of by the patient was almost always very severe, and frequently compelled cessation of this mode of treatment.

M. Loumeau has followed the line of treatment laid down by Guyon, and reports nine personal observations, in which sublimate was used as a therapeutic measure. A summary of his results is as follows:

In the first three cases thirty grammes of a warm sublimate solution, 1-2000, was injected into the bladder, and allowed to remain two or three minutes. The first case was one of chronic cystitis, caused by a vesical calculus. Here the treatment was unsuccessful. The second was of gonorrhoeal origin, which was complicated by tuberculosis of the bladder. The condition of this patient was improved, but the resistance of the tubercle bacillus is far greater than that of the gonococcus of Neisser, and but little change occurred so far as the tubercular factor of the trouble was concerned. The third case suffered from an uncomplicated gonorrhoeal cystitis. This time complete cure resulted from the instillation. Extreme pain was experienced in each case, because instead of drops grammes were used, and the reaction was too great.

Six months later Loumeau reports the remaining six cases. In all of these a non-alcoholic solution of sublimate in boiled distilled water of from 1-4000 to 1-3000 was used. The point of application

must be carefully estimated, for what is barely borne by the mucous membrane of the bladder is insupportable in the urethra. Two of the six cases suffered from acute cystitis; four from chronic cystitis; all were of gonorrhœal origin. In the acute cases sublimate was used in the bladder alone, the reaction from sublimate in the urethra in such cases having been shown by Collin to be too severe. In the chronic cases, however, the bladder and the urethra were both treated by the remedial agent.

The number of drops instilled varied somewhat with the case. In acute cystitis twenty drops were used at each treatment; in chronic cases thirty to forty drops, according to the tolerance of the patient and the length of time that the disease had existed.—*Chirurgie des Voies Urinaires.*

H. P. DE FOREST (Brooklyn).

**III. The Abbe String Saw in Urethral Surgery.** By G. FRANK LYDSTON, M.D. (Chicago). The author reports a recent case which demonstrates a novel field in which the ingenious invention of Dr. Abbe, of New York, may be used. The case was that of a young man who presented a traumatic stricture in the bulbo-membranous region, and hard and tortuous multiple gonorrhœal strictures in the penile urethra. Midway between the peno-scrotal and perineal scrotal angles there was a very tight contraction, through which could barely be passed a No. 1 filiform. After three weeks' fruitless attempts at preliminary dilatation, perineal section was performed. Even under anæsthesia it was impossible to introduce a bougie larger than No. 1. After opening the urethra and dividing the deep traumatic stricture, it was found impossible to introduce a urethrotome through the penile portion of the canal, even with a guide. The stricture was so hard, tortuous, and cartilaginous that the attempt was given up after repeated trials. He then tied a fine silk thread to the filiform bougie in the perineum, and drew the instrument out at the meatus, leaving the string in the canal. After a few seconds' sawing of the string, the pressure of the string being directed towards the roof of the canal,

he drew through by aid of the first string a large silk ligature, and by the same sawing motion so enlarged the strictures that in a very few seconds he was enabled to pass a bougie of good size. The operation was then completed by means of the dilating urethrotome.

The author considers this method much more convenient and far safer than attempts to force the blades of the urethrotome through a narrow and tortuous canal, whether with or without a guide.—*Author's Abstract.*

**IV. New Treatment of Hydrocele.** By J. NEUMANN (Muehlheim, Germany). The writer describes a new method of treating hydrocele which he has employed successfully in six cases. After careful disinfection a trocar is introduced into the tumor. After withdrawal of the stilette, while the fluid is escaping, the canula is pushed up still farther, covered with a slightly compressing dressing of cotton and a bandage. This is left in place for two to three days. In all of his cases adhesion took place without either inflammation or suppuration. After removal of the canula, treatment is limited to local application of lead-water to the still reddened and swollen scrotal skin. The advantages of this method are its simplicity, and short period of healing as contrasted with the treatment by injection, its slight painfulness and greater assurance against consequent inflammation. Adhesion of the walls of the sac is probably due to the local influence of the canula, the alteration in pressure, and the efflux of fluid, which facilitates emigration of leucocytes which, decomposing, produce a fibrinogenous ferment which causes coagulation of the serum. With the slight compression of the bandage the surplus serum flows out, and adhesion of the two serous surfaces is permitted with rigid antisepsis without inflammation.—*Wiener Medizinische Presse*, No. 45, 1893.

**V. A New Method of Treating Hydrocele.** By S. SATO (Tokio, Japan). The author, in a report of the work of the Juntendo Hospital, of Tokio, describes a method of treating hydro-

cele which he has devised. It consists in scarification of the tunica vaginalis. The important points in the operation are strict antiseptics and careful checking of all hæmorrhage before suturing. In a case with a favorable course there is no trace of inflammation, swelling, or pain after operation. Generally, in about a week, the margin of the incision heals by first intention, when all sutures may be removed. But, if antiseptic precautions are not rigidly carried out, or the hæmorrhage is not checked, there will be swelling, pain, and rise of temperature. In such case remove a few sutures, and introduce a probe, to give vent to the accumulated pus and blood. Apply antiseptic gauze, and advise rest in bed. Thus treated the case will soon recover, while the inflammatory symptoms will abate. The suture materials are also important points in the method. He used silk or catgut for the tunica vaginalis, and silk for the skin. If the cutaneous wound be stitched too far from the margin of the wound the elasticity of the scrotal skin will cause it to roll in, bring the two surfaces into contact, and possibly induce separation. During the last year he has operated on twelve cases thus.—*The Sei I-Kwai Medical Journal*, No. 9, 1893.

FRANK H. PRITCHARD (Norwalk, Ohio).

#### BONES—JOINTS—ORTHOPÆDIC.

**I. Two Cases of Periostitis Albuminosa.** By Dr. W. SCHRANK (Wiesbaden). The author reports two cases of this disease, both affecting the tibiæ of boys. The clinical history in each case was that of subacute osteomyelitis, but without fever. Incision of the tumors showed the presence of a quantity of reddish-yellow serous fluid, containing flocculi of fibrin and a few pus-corpuscles. The periosteum was partly destroyed and the bone affected with caries of a mild type. In one case the process had evidently been engrafted upon an old osteomyelitis, as a small sequestrum was found in the vicinity surrounded by a little thick pus.

Bacteriological examination showed the presence of staphylococcus albus in both specimens. Streptococci were also present in